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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,759	07/09/2003	Kee Yean Ng	70021175-1	2290

7590 09/09/2005

AGILENT TECHNOLOGIES, INC.
Legal Department, DLA29
Intellectual Property Administration
P.O. Box 7599
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EXAMINER

FARAHANI, DANA

ART UNIT PAPER NUMBER

2891

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary

Application No.

10/616,759

Applicant(s)

NG ET AL.

Examiner

Dana Farahani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiki et al., hereinafter Shiiki (US Patent 6,762,551), previously cited, in view of Mueller-Mach et al., (US Patent 6,630,691), hereinafter Mueller, a newly cited reference.

Shiiki discloses in figure 3 a method for fabricating a light source comprising: mounting a chip 1 having a light source on a substrate, the primary light source emitting light of a first wavelength; connecting power terminals on the chip to corresponding power terminals 3 and 4 on the substrate; and mounting a preformed transparent cap 5 over the chip, the planar sheet cap comprising a wavelength-converting material for converting a portion of the light of the first wavelength to a second wavelength.

Shiiki does not disclose the cap is monocrystalline.

Mueller discloses in figure 2, a single crystal phosphor substrate converts the emitted blue light from light emitter 2 to a white light (see column 4, lines 19-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have made the cap layer of the Shiiki reference from a single crystal phosphor layer. One would have been motivated to do so for the purpose of increasing the LED's color quality/uniformity as taught by Mueller (e.g. Col. 1, lines 50-55) while simultaneously maintaining more flexible LED design

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wherein the decision of whether to add the down converting layer is optional and could be made at the back end of the manufacturing process as the demand for transient changes of the blue versus white LEDs dictate.

3. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiki in view of Yamashita (US Patent 4,599,537), previously cited.

Shiiki discloses the limitations in the claims, as discussed above, but does not disclose the cap being a spherical surface with constant thickness.

Yamashita discloses in figures 4 and 8, a spherical surface above a light emitting diode 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the cap layer of Shiiki in a spherical form with constant thickness, since it is customary in the art to make light radiating layers in spherical form so the emitted light from those layers converge either to a bright point or to parallel, uniform rays. These two properties of the converged light are beneficial in some applications of light emitters.

Response to Arguments

4. Applicant's arguments with respect to the previously rejected claims have been considered but are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Farahani whose telephone number is (571)272-1706. The examiner can normally be reached on M-F 9:00AM - 6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Baumeister can be reached on (571)272-1722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Farahani

LONG PHAM
PRIMARY EXAMINER